

LXIII.—*Descriptions of new Species of Phasmodæ from Dominica, Santa Lucia, and Brazil (Theresopolis), in the Collection of the British Museum.* By W. F. KIRBY, Assistant in the Zoological Department, British Museum (Natural History).

THE bulk of the species described in the present paper were collected by Mr. Ramage; but I take the present opportunity of adding the description of a remarkable new genus and species lately received from Herr Frubstorfer from Theresopolis. In addition to the new species, Mr. Ramage's collection contained two damaged specimens apparently referable to *Bacuncululus haita*, Westw., and *Bacteria calamus*, Fabr., from Santa Lucia. There were also several specimens of *Pseudobacteria antillarum*, Sauss.\*, originally described from Guadeloupe. In the specimens from Dominica the antennæ are yellow for one third of the distance from the base, the rest being brown alternating with yellow spaces. In one specimen the four subapical spines on the middle and hind tibiæ are wholly absent on the right side, though on the left side the legs are armed as usual.

*Diapheromera* (?) *Saussurii*.

*Male*.—Long. corp. 62 millim.; thor. 25; mesoth. 15; metath. 10; abd. 25.

Size and appearance of *D. Sayi*, Gray; brown, finely granulated, the sutures and a lateral groove, not visible from above, running along the whole length of the body. Antennæ slender, as long as the body. Legs slender, the middle femora not thickened, about as long as the metathorax; middle tibiæ of equal length; first joint of middle tarsi as long as the three following, the second one third as long, the third and fourth successively shorter, the fifth pear-shaped and (without the claws) nearly as long as the second; the front and hind legs are a little longer than the middle ones, and the first joint of their tarsi is longer in proportion; the four hind femora are armed with a small tooth beneath before the extremity. Head about as long as the prothorax, with a slight groove in the median line; two small horns between the eyes. Prothorax with deep longitudinal and transverse grooves, forming a cross. The three terminal segments of

\* *Bacteria antillarum*, Sauss. Rev. Zool. 1868, p. 65; Miss. Mex. vi. p. 157 (1870).

the abdomen raised and thickened; cerci very large and crossing each other, as in *D. Sayi*.

*Hab.* St. Michael, Dominica.

I have preferred to place this insect in *Diapheromera* rather than *Bacunculus* on account of the structure of the cerci, although the middle femora are not thickened. If it is regarded as more properly belonging to *Bacunculus*, its proper place would be near *B. olmeca*, Sauss., in which the head is likewise cornuted; but *B. olmeca* is smaller, the abdomen is hardly granulated, and the legs are unarmed, apart from other differences.

*Pterinoxylus crassus.*

Long. corp. (absque operculo) 160 millim.; thor. 68; mesoth. 35; metath. 20; abd. 86; long. tegm. 16; al. 26.

*Female.*—Reddish brown (?) (colours altered); antennæ stout, as long as the mesothorax; head and thorax strongly granulose; thorax and abdomen with traces of two contiguous lateral black stripes. Head greyish on the vertex; mesothorax with a strong lateral groove extending its whole length to the base of the tegulæ, and another on its lower surface terminating within the middle coxæ; metathorax with a very strong transverse depression above just behind the wings. Metathorax and abdomen hardly granulated above, abdomen with the spiracles placed on a wart at the base of each segment and very conspicuous; below them runs a rather irregular longitudinal row of small warts, and towards the middle of the abdominal segments beneath, the surface is more granular and wrinkled; sixth segment very slightly expanded. Operculum short and broad. Legs of about uniform length; front femora and tibiæ flattened, with large irregular serrations and foliations; middle femora with several large teeth, and strongly lobate towards the extremity, with a strong notch above near the base; hind femora with a row of very small teeth below, with three or four still smaller ones in each interspace, and a very large lobe near the extremity above, projecting behind in a point, below which are three shorter teeth; hind tibiæ with a similar but smaller lobe, with only two teeth. All the tarsi blackish. Tegmina humped and with a large black spot in the middle. Wings with the costal area reddish, a smooth oval space at the base, probably vitreous in fresh specimens, the remainder smoky semitransparent brown, the nervures marked with short black stripes alternating with interrupted transverse rows of white spots.

*Hab.* Dominica (March 1889).

A remarkable insect, allied to *P. difformipes*, Serv., but much stouter and abundantly distinct.

*Pseudobacteria longiceps.*

Long. corp. 98 millim. ; thor. 36 ; mesoth. 21 ; metath. 7 ; abd. 50 ; fem. ant. 24 ; interm. 18 ; post. 26 ; lat. mesoth. 3.

*Female.*—Reddish brown, indistinctly mottled and granulated with blackish above, which makes it look darker ; head longer than the mesothorax, with a black groove in the median line ; antennæ blackish, indistinctly annulated with paler ; thorax strongly longitudinally carinated, especially on the sides and beneath ; legs paler than the upper surface of the body, indistinctly ringed with blackish ; the coxæ, the tips of the hind tibiæ, and the last four joints of their tarsi more distinctly black (front tarsi broken off). Mesothorax with a moderate-sized black spot at the extremity above ; hinder lobe of the metathorax extremely short. Abdomen with segments one to six of nearly equal length, the neighbourhood of the suture of the fourth and fifth segments and the last three segments paler than the rest. The segments are of about equal width throughout as far as the sixth, which narrows from its base to its extremity ; the last three are much narrower than the others, and only about two fifths as long, being not much longer than broad. Cerci rather small.

*Hab.* Santa Lucia.

ABRACHIA, nov. gen.

*Female.*—Apterous, elongated, smooth.

Head long, oval ; antennæ 22-jointed, the first joint large, broadest at the tip, the second narrower, not much longer than broad, the third narrower, cylindrical, much longer than broad, and followed by a closely connected series of transverse cheese-shaped joints, which become longer and more distinctly separated towards the extremity. Prothorax hardly as long as the head, with a transverse crescent-shaped impression on the centre. Mesothorax about half as long again as the metathorax, which latter is marked with a transverse suture. Abdomen cylindrical, the joints (except the last two) much longer than broad. Operculum extremely long, cerci &c. short. Legs carinated, femora spined, and four hind tibiæ lobed.

A singular genus, with much shorter antennæ than any

*Phasma* previously described from the New World. In the shape of the head it resembles *Lonchodes*; but the serrated front femora would recall *Acrophylla*.

*Abrachia brevicornis*.

Length, from head to extremity of abdomen (not including operculum) 162 millim.; length of operculum beyond abdomen 30; length of head 9; prothorax 6; mesothorax 33; metathorax 26; abdomen 88; (antennæ in a smaller specimen 8 millim.).

Greenish brown; colour during life probably green. Front femora strongly serrated on both sides for two thirds of their length; front tibiæ unarmed. Serrations of the four hind tibiæ smaller and extending for two thirds of the length on the outside and for one third on the inside; four hind tibiæ with one (rarely two) large triangular tooth-like lobes on the under surface. All the femora rather longer than the tibiæ; first joint of tarsi as long as or longer than all the rest together.

*Hab.* Theresopolis, Brazil.

Two specimens, both females; the second is one sixth smaller than the type.

BIBLIOGRAPHICAL NOTICES.

*Report upon the Crinoidæ collected during the Voyage of H.M.S. 'Challenger' during the Years 1873-76.*—Part II. *The Comatulæ*. By P. HERBERT CARPENTER, D.Sc., F.R.S., F.L.S., Assistant Master at Eton College. Pp. i-ix, 1-399; 70 plates. [*Report on the Scientific Results of the Voyage of H.M.S. 'Challenger.'*—Zoology, part ix.] Published by Order of Her Majesty's Government, 1888.

THE masterly monograph on the Stalked Crinoids by Dr. P. Herbert Carpenter, which was noticed in this Journal\*, justly caused the appearance of the Report on the Comatulæ to be looked for with great anticipation. This work has recently been published, and the most sanguine expectations will be found to have been in no way disappointed.

Until recently the Comatulæ have been singularly neglected by naturalists. This circumstance was due partly perhaps to the difficulties of study and partly to the comparative scarcity of specimens. Before the work of Dr. Carpenter the classification of the known

\* Ann. & Mag. Nat. Hist. ser. 5, vol. xv. p. 346.